

ABSTRACT OF THE DISCLOSURE

Z-transform calculations may be used to encode
(and/or decode) carrier signal independent data (e.g.,
digital watermarks) to a digital sample stream.
Deterministic and non-deterministic components of a
5 digital sample stream signal may be analyzed for the
purposes of encoding carrier signal independent data
to the digital sample stream. The carrier signal
independent data may be encoded in a manner such that
it is restricted or concentrated primarily in the non-
10 deterministic signal components of the carrier signal.
The signal components can include a discrete series of
digital samples and/or a discreet series of carrier
frequency sub-bands of the carrier signal. Z-
transform calculations may be used to measure a
15 desirability of particular locations and a sample
stream in which to encode the carrier signal
independent data.